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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,648	02/19/2004	Kelly Libby	2331-001	2184

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EXAMINER

LUKS, JEREMY AUSTIN

ART UNIT	PAPER NUMBER
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2837

DATE MAILED: 12/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/780,648

Applicant(s)

LIBBY, KELLY

Examiner

Jeremy Luks

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Priority*

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Canada on 1/21/2004. It is noted, however, that applicant has not filed a certified copy of the Canadian application as required by 35 U.S.C. 119(b).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hedrick (2,150,768) in view of MacKenzie (2,065,232).

With respect to Claims 1-4, 7-10, 15-17 and 19 Hedrick teaches a plurality of anti-reversionary devices (Figures 2 and 3) adapted to an exhaust conduit fit adjacent to an engine (Col. 2, Lines 33-35), having a bore through which gas flow to an internal combustion engine, comprising an inner pipe (Figure 1, #16) positioned substantially concentrically and co-axially within the bore of the conduit (10), a cylindrical housing (18) adapted to fit to the bore of the conduit (10) and an annular wall (15) extending to fit between the pipe (16) and the cylindrical housing (18), the annular wall (15) having a plurality of ports (Figure 2, #17) formed therein and about the inner pipe (Figure 1, #16), each port (17) forming a passage directed radially inward and downstream and wherein

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the inner pipe (16) has a tubular gas inlet projecting upstream from the annular wall (15) so that the annular wall (15) separates the gas flow into an annular gas flow and a central gas flow, the central gas flow being faster than the annular gas flow at the tubular gas inlet, and the annular gas flow accelerates through the plurality of passages (17) for directed discharge into the central gas flow (Col. 1, Line 34-Col. 2, Line 9).

Hendrick fails to teach wherein the annular wall is a truncated cone, which is angled downstream from the inner pipe to the conduit. MacKenzie teaches a muffler (Figure 2) having an annular wall (67) is a truncated cone, which is angled downstream from an inner pipe (52) to a conduit (50), and where the conduit is an intake to an internal combustion engine. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of Hedrick, with the apparatus of MacKenzie to better divert the gases to the annular and central passages, alleviating backpressure. Mackenzie fails to teach where the conduit is an intake to an internal combustion engine. However, Official Notice is taken that it is well known in the art that silencing devices and methods in internal combustion engines are interchangeably used with respect to the intake and exhaust ends of the flow path.

With respect to Claims 5-6, 13-14, 18 and 20, Hedrick and MacKenzie are relied upon for the reasons and disclosures set forth above. Hedrick and MacKenzie fail to teach wherein the passages are angled radially inward between 20 and 30 degrees. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to angle the passages radially inward between 20 and 30 degrees, since it has been held that where the general conditions of a claim are disclosed in the

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prior art, discovering the optimum or working range or value involves only routine skill in the art. *In re Aller*, 105 USPQ 233. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

With respect to Claims 11 and 12, Hedrick teaches wherein the housing (Figure 1, #118), annular wall (15) and inner pipe (16) are formed from a sheet material, having a wall thickness, which forms the passage (Figures 1 and 2, #17) through the annular wall (15). Further, the method of forming a device is not germane to the issue of patentability of the device itself. Therefore, this limitation has been given little patentable weight.

### ***Response to Arguments***

3. Applicant's arguments filed October 25, 2006 have been fully considered but they are not persuasive. The Examiner maintains that the obvious combination of Hedrick and MacKenzie teaches all of the limitations as claimed by Applicant.

4. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

5. In response to applicant's argument that *the apertured baffles of MacKenzie are used to direct sound waves so as to alter the direction causing the sound waves to cancel out and silence the exhaust, and that MacKenzies' baffles are not and cannot be used to affect the direction of the gas flow*, a recitation of the intended use of the

claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

6. With respect to Applicant's argument that *the combination as proposed by Examiner would render MacKenzie inoperative for the purposes for which it was designed*, the Examiner notes that Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hedrick (2,150,768) in view of MacKenzie (2,065,232). In this case, the Hendrick apparatus has been modified by the teachings of MacKenzie. The Examiner finds this argument irrelevant since no modification has been made to MacKenzie,

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy Luks whose telephone number is (571) 272-2707. The examiner can normally be reached on Monday-Thursday 8:30-6:00, and alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on (571) 272-1988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jeremy Luks  
Patent Examiner  
Art Unit 2837  
Class 181



LINCOLN DONOVAN  
SUPERVISORY PATENT EXAMINER